

0978

PB 209 704

AIR POLLUTION REPORT

FEDERAL FACILITIES

METROPOLITAN HOUSTON-GALVESTON

INTRASTATE AIR QUALITY CONTROL REGION

ENVIRONMENTAL PROTECTION AGENCY

Air Pollution Control Office

Reproduced by
**NATIONAL TECHNICAL
INFORMATION SERVICE**
Springfield, Va. 22151

29

BIBLIOGRAPHIC DATA SHEET	1. Report No. APTD-0998	2.	3. Recipient's Accession No.																				
4. Title and Subtitle Air Pollution Report - Federal Facilities Metropolitan Houston - Galveston Intrastate Air Quality Control Region			5. Report Date July 1971																				
			6.																				
7. Author(s) Franklin M. Orr, Jr.			8. Performing Organization Rept. No.																				
9. Performing Organization Name and Address ENVIRONMENTAL PROTECTION AGENCY Air Pollution Control Office Division of Abatement, Federal Facilities Branch Rockville, Maryland			10. Project/Task/Work Unit No.																				
			11. Contract/Grant No.																				
12. Sponsoring Organization Name and Address Same			13. Type of Report & Period Covered																				
			14.																				
15. Supplementary Notes																							
16. Abstracts The status is presented of the Federally owned facilities within the Metropolitan Houston-Galveston Air Quality Control Region with regard to the implementation of the objectives prescribed by the Clean Air Act, as amended. Fuel usage, refuse disposal practices, air pollution emissions and proposed abatement measures for the listed installations are reported. This Region was subsequently redesignated and its boundaries expanded, hence, the data do not reflect Federal facility emissions data for the counties of : Austin, Colorado, Matagorda, Walker, and Wharton in Texas, which have been added to the region.																							
17. Key Words and Document Analysis. 17a. Descriptors <table border="0"> <tr> <td>Air Pollution</td> <td>Nitrogen Oxides</td> </tr> <tr> <td>Inventories</td> <td>Carbon Monoxide</td> </tr> <tr> <td>Exhaust Emissions</td> <td>Particles</td> </tr> <tr> <td>Fuels</td> <td>Hydrocarbons</td> </tr> <tr> <td>Refuse Disposal</td> <td></td> </tr> <tr> <td>Abatement</td> <td></td> </tr> <tr> <td>Urban Areas</td> <td></td> </tr> <tr> <td>National Government</td> <td></td> </tr> <tr> <td>Natural Gas</td> <td></td> </tr> <tr> <td>Sulfur Oxides</td> <td></td> </tr> </table>				Air Pollution	Nitrogen Oxides	Inventories	Carbon Monoxide	Exhaust Emissions	Particles	Fuels	Hydrocarbons	Refuse Disposal		Abatement		Urban Areas		National Government		Natural Gas		Sulfur Oxides	
Air Pollution	Nitrogen Oxides																						
Inventories	Carbon Monoxide																						
Exhaust Emissions	Particles																						
Fuels	Hydrocarbons																						
Refuse Disposal																							
Abatement																							
Urban Areas																							
National Government																							
Natural Gas																							
Sulfur Oxides																							
17b. Identifiers/Open-Ended Terms																							
17c. COSATI Field/Group 13 B																							
18. Availability Statement Unlimited		19. Security Class (This Report) UNCLASSIFIED	21. No. of Pages 28																				
		20. Security Class (This Page) UNCLASSIFIED	22. Price																				

ADDENDUM TO THE PUBLICATION

"AIR POLLUTION REPORT ON FEDERAL FACILITIES IN THE
METROPOLITAN HOUSTON-GALVESTON INTRASTATE AIR QUALITY
CONTROL REGION", July, 1971.

from 0.1

This inventory was prepared consistent with the report entitled "Consultation on the Metropolitan Houston-Galveston Intrastate Air Quality Control Region", October 1969, and the geographical designation of January 20, 1970. On February 9, 1971, in line with the concept of including the entire United States in these geographical units called Air Quality Control Regions, ^{SUBSEQUENTLY} this Region was redesignated and its boundaries expanded, by the Environmental Protection Agency. Hence, the data presented herein do not reflect Federal facility emissions data for the counties of: Austin, Colorado, Matagorda, Walker, and Wharton in Texas, which have been added to the region.

Federal Sources Branch
Division of Compliance
Environmental Protection Agency

November 2, 1971

AIR POLLUTION REPORT

FEDERAL FACILITIES

METROPOLITAN HOUSTON-GALVESTON

INTRASTATE AIR QUALITY CONTROL REGION

FRANKLIN M. ORR JR.
FEDERAL FACILITIES BRANCH
DIVISION OF ABATEMENT
AIR POLLUTION CONTROL OFFICE
ROCKVILLE, MARYLAND

JULY, 1971

TABLE OF CONTENTS

	<u>Page</u>
NARRATIVE.....	1
FIGURE 1 MAP OF METROPOLITAN HOUSTON-GALVESTON AIR QUALITY CONTROL REGION.....	3
TABLE I. FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES.....	4
TABLE II. ANNUAL FUEL USE BY FEDERAL FACILITIES.....	19
TABLE III. FEDERAL CONTRIBUTION TO AIR POLLUTION	20
TABLE IV. FEDERAL POINT SOURCES.....	21
TABLE V. ABATEMENT PROGRAM FOR FEDERAL PROBLEM AREAS.	22
TABLE VI. POLLUTANT REDUCTION GOALS.....	23
REFERENCES AND NOTES.....	24

NARRATIVE

This report presents the current status of the Federally owned facilities within the Metropolitan Houston-Galveston Air Quality Control Region with regard to the implementation of the objectives prescribed by the Clean Air Act, as amended. The data in this report are the most recently available and reflect the current fuel usage, refuse disposal practices, air pollution emissions and proposed abatement measures for the listed installations.

I. BOUNDARIES OF THE AIR QUALITY CONTROL REGION

On January 20, 1970, the Metropolitan Houston-Galveston Intra-state Air Quality Control Region was designated pursuant to section 107(a) of the Clean Air Act, as amended. The 10 county intrastate Region consists of Brazoria, Chambers, Fort Bend, Galveston, Harris, Liberty, Montgomery and Waller counties, all in the state of Texas.

II. NUMBER OF FEDERAL FACILITIES

There are 87 Federal installations within the Region and of these 31 are involved in burning either fossil fuels or refuse. Table I lists those facilities and the quantities of fuel and refuse burned by each. Table II is a summary of the total annual fuel usage for the respective Counties within the Region. Federal facilities use only natural gas as fuel in this Region. No coal or oil is used.

III. FEDERAL CONTRIBUTIONS TO AIR POLLUTION

The Federal facilities within the Metropolitan Houston-Galveston Air Quality Control Region emit annually a total of 443 tons of nitrogen oxides (NO_x), 34 tons of particulates (PART), 27 tons of carbon monoxides (CO), 11 tons of hydrocarbons (HC) and 4 tons of sulfur oxides (SO_x). Federal facilities contribute substantially less than 0.1 percent of the particulates, carbon monoxides, and sulfur oxides emitted by all stationary sources in the region.

Aircraft emissions as well as emissions from other transportation sources are not included in this report. Such emissions are significant, however, Annual emissions from Federally owned aircraft are estimated to be approximately 345 tons of hydrocarbons, 327 tons of particulates, 278 tons of nitrogen oxides and 1463 tons of carbon monoxides.

Table IV lists those Federal facilities which are classified as major point sources. One such source exists in the region: NASA, Manned Spacecraft Center.

IV. REMEDIAL ABATEMENT MEASURES PROPOSED

One Federal facility, listed in Table VI, reported on air pollution problem and proposed remedial measure in their 1967-1972 five year abatement plan. This action and the expected reduction in air pollution emissions produced when the abatement plan has been put into effect are presented in Table VII.

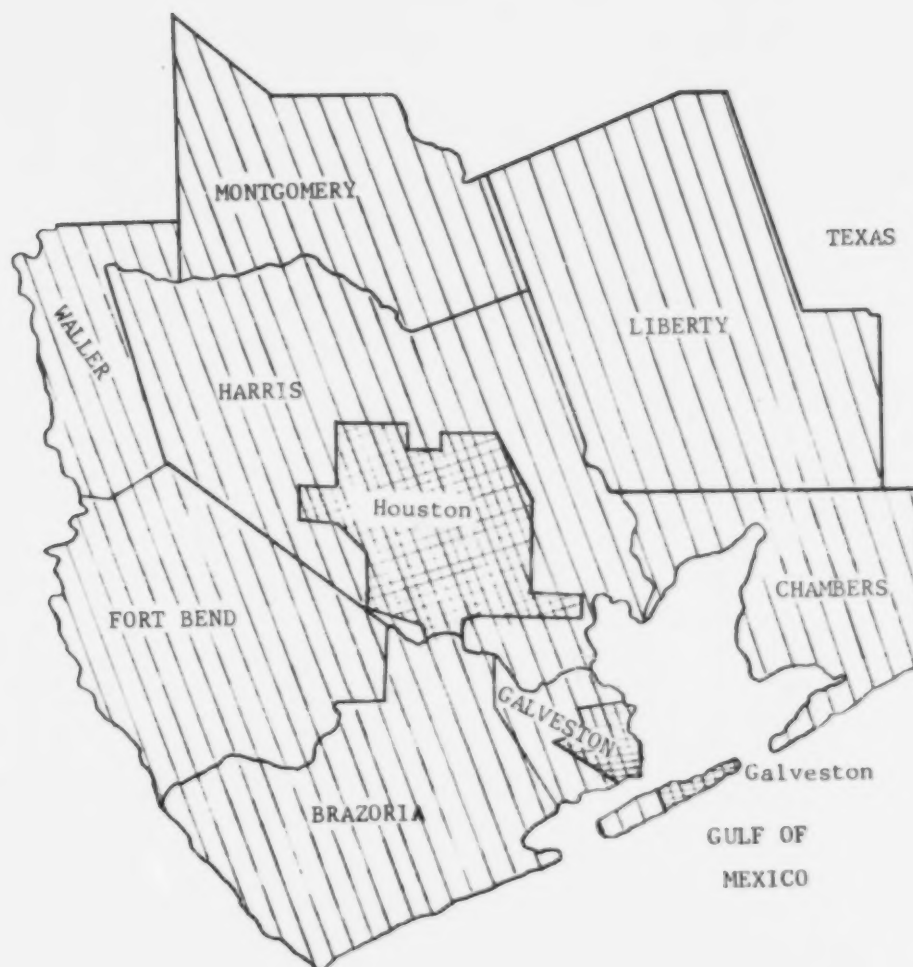


FIGURE 1
METROPOLITAN HOUSTON - GALVESTON INTRASTATE
AIR QUALITY CONTROL REGION

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
TEXAS BRAZORIA ALVIN							
PO MAIN OFF 302 W SEALY	0	0	248	0	0	0	REFUSE COLLECTED
TEXAS BRAZORIA ANGLETON							
BRAZORIA NAT WILDLIFE REF	0	0	0	0	0	0	
TEXAS BRAZORIA FREEPORT							
FREEPORT TEST FACILITY	0	0	0	0	0	0	REFUSE COLLECTED
SAN BERNARD NAT WLF REF	0	0	0	0	0	0	
ENG DOCK TWOOL HOUSE	0	0	0	0	0	0	NO EMISSIONS

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
BRAZOS RIV DIVERSION CH	0	0	0	0	0	0	NO EMISSIONS
FREEPORT HARBOR	0	0	0	0	0	0	
TEXAS BRAZORIA PEARLAND							
FAA--OM	0	0	0	0	0	0	OUTER MARKER
TEXAS BRAZORIA VELASCO							
FREEPORT STATION	0	0	0	0	0	0	REF HAULED TO CITY DUMP
TEXAS CHAMBERS ANAHUAC							
ANAHUAC REFUGE	0	0	0	0	0	0	REFUSE COLLECTED

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
TEXAS CHAMBERS WINNIE							
B P COMMUN SYSTEM	0	0	0	0	0	0	UNMANNED RADIO STA
TEXAS FORT BEND KATY							
FAA--RMLR	0	0	0	0	0	0	RADAR MICRO- WAVE LINK
TEXAS FORT BEND ROSENBERG							
PCST OFFICE 2103 AVE G	0	0	171	0	0	0	REFUSE COLLECTED
TEXAS GALVESTON GALVESTON							
N S SAVANNAH FACILITY	0	0	0	0	0	0	DOCKING AN STORAGE FAC

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)			COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)
GALVESTON BIOLOG LAB	0	0	2607	0	0	0
US CUST HSE AVE B, 17 ST	0	0	3985	0	0	0
FOB, POST OFF, & 20 ST.	0	0	432	0	0	0
PO & CTHSE AVE F, 25 ST	0	0	8174	0	0	0
GALVESTON JETTY LTSTA	0	0	0	0	0	0
GALVESTON LB STA RES	0	0	0	0	0	0
GALVESTON BASE	0	0	0	0	0	0
						REFUSE COLLECTED
						REFUSE COLLECTED
						REFUSE COLLECTED
						REFUSE COLLECTED
						UNUSED LAND

TABLE I

FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
TEXAS HARRIS ADDICKS							
BUF BAYOU FL CON PROJ	0	0	0	0	0	0	NO EMISSIONS
TEXAS HARRIS BAYTOWN							
PO MAIN OFF 220 W DEFEE	0	0	150	0	0	0	REFUSE COLLECTED
PO STA A 3508 MARKET	0	0	806	0	0	0	REFUSE COLLECTED
TEXAS HARRIS ELLINGTONAFB							
FAA--ARSR	0	0	0	0	0	0	LONGRANGE RADAR
TEXAS HARRIS GONDA							
ELLINGTON AFB	0	0	137756	0	0	0	SANITARY LANDFILL

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)			COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)
ELLINGTON RRG	0	0	0	0	0	0
TEXAS HARRIS HOUSTON						
PARCEL POST ANNEX	0	0	500	0	0	0
TERMINAL ANNEX SITE	0	0	0	0	0	0
VA HOSP 2002 HGLCOMBE	0	0	234969	0	0	0
APPRAISERS STORE+WINGAT	0	0	8584	0	0	0
FOB 201 FANNIN	0	0	2060	0	0	0

REFUSE
COLLECTEDREFUSE
COLLECTEDREFUSE
COLLECTED

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
US CUST HSE SAM HOU STA	0	0	4720	0	0	0	REFUSE COLLECTED
FOB & CTHSE 515 RUSK AVE	0	0	12900	0	0	0	REFUSE COLLECTED
PO SITE FRANKLIN & LA	0	0	4640	0	0	0	REFUSE COLLECTED
MOTOR POOL SITE	0	0	0	0	0	0	NOT YET CONSTRUCTED
VA BLDG 2320 LA BRANCH	0	0	1131	0	0	0	REFUSE COLLECTED
OLD ST THOM- AS SCH BLDG	0	0	0	0	0	0	BUILDING DEMOLISHED
HOU STATION 2309 AUSTIN	0	0	273	0	0	0	REFUSE COLLECTED

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	CCAL (TONS)	
FAA--VASI	0	0	0	0	0	0	LANDING LIGHTS
FAA--VCF	0	0	0	0	0	0	DIRECTIONAL FINDER
FAA--ATCT	0	0	0	0	0	0	AIR TRAFFIC CNTRL TOWER
FAA ARTCC	0	0	7926	0	0	0	REFUSE COLLECTED
FAA--MM	0	0	0	0	0	0	MIDDLE MARKER
FAA--LCC	0	0	0	0	0	0	HORIZONTAL NAV AID
FAA--ALSF	0	0	0	0	0	0	APPROACH LIGHT SYSTEM

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
FAA--VTAC	0	0	0	0	0	0	RANGE/DIRECT AID
FAA--RTR	0	0	0	0	0	0	TRANSMITTER/ RECEIVER
FAA--RTR	0	0	0	0	0	0	TRANSMITTER/ RECEIVER
FAA--RMLR	0	0	0	0	0	0	RADAR MICRO- WAVE LINK
FAA--GS	0	0	0	0	0	0	VERTICAL NAV AID
FAA--ASR	0	0	0	0	0	0	AIRPORT RADAR
FAA--RMLR	0	0	0	0	0	0	RADAR MICRO- WAVE LINK

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
FAA--RTR	0	0	0	0	0	0	TRANSMITTER/ RECEIVER
FAA--SB	0	0	0	0	0	0	NAVIGATIONAL AID
MANNED SPACE CRAFT CENTER	0	800	2346980	0	0	0	NO EMISSIONS
HOUSTON SHIP CHANNEL	0	0	0	0	0	0	NO EMISSIONS
USARC HOUSTON	0	0	1800	0	0	0	
TEXAS HARRIS LA PORTE							
MORGAN POINT ENGR FLD OFF	0	0	0	0	0	0	NO EMISSIONS

TABLE I
FUEL USAGE AND REFUSE DISPOSAL FOR FEDERAL FACILITIES

LOCATIONS	REFUSE (LBS/DAY)		FUELS (PER YEAR)				COMMENTS
	OPEN BURNING	INCIN- ERATION	GAS (MCF)	DIST OIL (GALS)	RESID OIL (GALS)	COAL (TONS)	
TEXAS LIBERTY LIBERTY							
PCST OFFICE 538 MAIN ST	0	0	129	0	0	0	REFUSE COLLECTED
TEXAS MONTGOMERY NO CITY I D							
NO INSTALS	0	0	0	0	0	0	
TEXAS WALLER NO CITY I D							
NO INSTALS	0	0	0	0	0	0	

TABLE II
ANNUAL FUEL USE BY FEDERAL FACILITIES

	COAL (TONS)	RESID CIL (GAL)	DIST CIL (GAL)	GAS (MCF)
TEXAS	0.	0.	0.	248.
BRAZORIA	0.	0.	0.	0.
CHAMBERS	0.	0.	0.	171.
FORT BEND	0.	0.	0.	39840.
GALVESTON	0.	0.	0.	2768134.
HARRIS	0.	0.	0.	129.
LIBERTY	0.	0.	0.	0.
MONTGOMERY	0.	0.	0.	0.
WALLER	0.	0.	0.	0.
TOTAL	0.	0.	0.	2808522.

TABLE III
FEDERAL CONTRIBUTION TO AIR POLLUTION
(TONS/YEAR)

	SOX	NOX	CO	PART	HC
EXAS					
BRAZORIA	0.	0.	0.	0.	0.
CHAMBERS	0.	0.	0.	0.	0.
FORT BEND	0.	0.	0.	0.	0.
GALVESTON	0.	3.	0.	0.	0.
HARRIS	4.	440.	27.	34.	12.
LIBERTY	0.	0.	0.	0.	0.
MONTGOMERY	0.	0.	0.	0.	0.
WALLER	0.	0.	0.	0.	0.
STATE TOTAL	4.	443.	27.	34.	12.
AREA TOTAL	4.	443.	27.	34.	12.

NOTE: (1) EMISSIONS REPORTED IN SIGNIFICANT FIGURES
(2) EMISSIONS LESS THAN 0.5 TONS/YR REPORTED AS ZERO

TABLE IV
FEDERAL POINT SOURCES
(TONS/YEAR)

SOX	NCX	CO	PART	HC
4.	400.	11.	29.	12.

TEXAS
HARRIS

MANNED SPACE
CRAFT CENTER

TABLE V
ABATEMENT PROGRAM FOR FEDERAL PROBLEM AREAS IN
THE HOUSTON-CALVESTON
INTRASTATE AIR QUALITY CONTROL REGION

- A. Statement of problem
- B. Abatement measures proposed in the five year plan*
- C. Abatement measures accomplished or in progress

TEXAS

GALVESTON

GALVESTON

U.S. Public Health Service Hospital

- A. Multiple chamber incinerator, single chamber incinerator
- B. Purchase surgical specimen and trash incinerator with emission controls.
- C. Preliminary Planning - completion 12/71

* 1967-72 plan per Executive Order 11282
superseded by Executive Order 11507

TABLE VI

POLLUTANT REDUCTION GOALS
(TONS/YEAR)

	SOX	NOX	CC	PART	HC
EXAS	0	0	0	0	0
BRAZORIA	0	0	0	0	0
CHAMBERS	0	0	0	0	0
FORT BEND	0	0	0	0	0
GALVESTON	0	0	0	0	0
HARRIS	0	0	0	0	0
LIBERTY	0	0	0	0	0
MONTGOMERY	0	0	0	0	0
WALLER	0	0	0	0	0
STATE TOTAL	0	0	0	0	0
AREA TOTAL	0	0	0	0	0

NOTE: Completion of the proposed abatement measures will result in negligible reduction of pollutants.

REFERENCES AND NOTES

1. Duprey, R.L., Compilation of Air Pollutant Emission Factors, Public Health Service Publication No. 999-AP-42, 1968.

All calculated emissions are based on these factors.

2. Report of Consultation on the Metropolitan Houston-Galveston Intrastate Air Quality Control Region, Public Health Service, October 1969.

Data on emissions from all sources used to calculate percent government contribution were obtained from this report.

3. Clean Air Act, as amended (42 U.S.C. 1857 - 1857L) Sec 107, Sec 111. November 21, 1967.
4. Executive Order 11507, Prevention, Control and Abatement of Air and Water Pollution at Federal Facilities, February 4, 1970.
5. Title 42 - Public Health, Chapter I, Subchapter F, Part 76, June 2, 1966.
6. Bureau of the Budget Circular A-78, May 18, 1970.
7. 1970 GSA Listing of Real Property owned by the Federal Government.